Respectfully submitted,

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Statement of Professor Jerry A. Hausman

1. My name is Jerry A. Hausman. I am the MacDonald Professor of Economics at the Massachusetts Institute of Technology in Cambridge, Massachusetts, 02139.

2. I received an A.B. degree from Brown University and a B.Phil. and D. Phil. (Ph.D.) in Economics from Oxford University where I was a Marshall Scholar. My academic and research specialties are econometrics, the use of statistical models and techniques on economic data, and microeconomics, the study of consumer behavior and the behavior of firms. I teach a course in "Competition in Telecommunications" to graduate students in economics and business at MIT each year. Mobile telecommunications, including competitive and technological developments in cellular, ESMR, satellite, and PCS, are some of the primary topics covered in the course. I was a member of the editorial board of the Rand (formerly the Bell) Journal of Economics for the past 13 years. The Rand Journal is the leading economics journal of applied microeconomics and regulation. In December 1985, I received the John Bates Clark Award of the American Economic Association for the most "significant contributions to economics" by an economist under forty years of age. I have received numerous other academic and economic society awards. My curriculum vitae is attached.

3. I have done significant amounts of research in the telecommunications industry. My first experience in this area was in 1969 when I studied the Alaskan telephone system for the Army Corps of Engineers. Since that time, I have studied the demand for local measured service, the demand for intrastate toll service, consumer demands for new types of telecommunications

technologies, marginal costs of local service, costs and benefits of different types of local services, including the effect of higher access fees on consumer welfare, demand and prices in the cellular telephone industry, and consumer demands for new types of pricing options for long distance service. I have also studied the effects of new entry on competition in paging markets, telecommunications equipment markets, exchange access markets, and interexchange markets and have published a number of papers in academic journals about telecommunications. Lastly, I have also edited two recent books, Future Competition in Telecommunications (Harvard Business School Press, 1989) and Globalization, Technology, and Competition in Telecommunications (Harvard Business School Press, 1993).

4. I have been involved in the cellular industry since 1984. I participated in PacTel's purchase of Communications Industries in 1985 and have provided testimony on previous occasions on cellular competition and regulation to the California PUC, the North Carolina PSC, and the Connecticut PUC. I also previously submitted testimony to the FCC on questions of cellular regulation, including the question of whether cellular companies should be allowed to bundle cellular CPE with cellular service and whether the FCC should forbear from regulation of mobile service providers. During the PCS proceedings I have filed 6 affidavits which considered eligibility questions for LECs, the presence of economies of scale and scope in providing PCS, the design of an appropriate auction framework for PCS spectrum, spectrum allocation and band size, eligibility for in-region cellular companies, and the appropriate framework for the award of pioneer preferences. I spoke at the FCC Task Force meeting on PCS held on April 11, 1994. I also have done significant academic research in mobile telecommunications and it is one of the primary topics in my graduate course, "Competition in Telecommunications", which I teach each year at MIT.

5. I am also submitting a statement on behalf of Southwestern Bell Corporation which addresses many of the same issues in this statement. A significant degree of overlap exists in the two statements.

I. Summary and Conclusions

6. I have been asked by Vanguard Cellular Systems (Vanguard) to consider issues surrounding the FCC's proposed imposition of equal access obligations on commercial mobile radio services providers (CMRS) which are raised in the FCC NPRM and NOI "In the Matter of Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Services" (CC Docket No. 94-54).

7. I conclude that equal access should not be required for cellular service providers. Equal access requirements on BOC cellular providers, mandated by the Bell system divestiture decree (Modification of Final Judgment or MFJ), currently cost consumers about $900 million per year and have led to decreased competition among providers of cellular service. Equal access, applied to all cellular providers, will further decrease competition and will have an especially severe impact on smaller and medium-sized cellular providers.

8. The proper framework for the regulation of cellular telephony should encourage high quality service and the lowest price for consumers. This goal is far different from a goal of "protecting" IXCs from having to deal with large buyers who can achieve much lower prices on long distance service than individual cellular customers currently pay. Competition among IXCs to provide cellular long distance service has been almost non-existent, with AT&T and the other IXCs engaged in anti-competitive price discrimination against cellular long distance customers. Thus, a requirement of equal access will not lead to a decrease in cellular long distance rates. Instead, it will

likely lead to an increase in cellular long distance rates because of the actions of the IXCs. The primary result of imposing equal access on non-BOC cellular carriers will be higher cellular prices and a transfer of wealth from cellular customers and from non-BOC cellular operators to the large IXCs like AT&T, MCI, and Sprint. Decreased investment in cellular networks will be the result of the new regulation. This outcome will harm cellular customers and cellular companies and will be inconsistent with the public interest.

II. Market Structure of Cellular and CMRS

9. The FCC licensed 2 cellular carriers in each MSA and RSA. The Block B carrier in each cellular telephone geographic market is the wireline carrier, so that in the large majority of situations this carrier is a BOC cellular company. The MFJ Court has applied interLATA restrictions and equal access provisions to the BOC Block B cellular companies. The Block A carrier can be either a non-BOC, e.g. McCaw the largest cellular provider in the U.S., a company like Vanguard with about 7 million POPS (about 10% as large as McCaw), or a BOC which purchased the license subsequent to the original FCC allocation. To date, the non-BOC Block A cellular carriers have not been subject to the equal access and interLATA restrictions while the Block A BOC cellular carriers have been subject to the restrictions.[1]

10. Nextel is beginning full operation of its ESMR network this year. Thus, increased competition in CMRS will be created by this new entrant. Nextel began operation in Los Angeles in 1993 and plans to begin operation in San Francisco and New York in 1994: "Nextel expects to activate the Digital Mobile networks in San Diego,..., the New York tri-state area, Chicago and Milwaukee sometime later in calendar year 1994...." (Nextel Prospectus, Feb.

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[1] Under the recent consent decree to allow its acquisition by AT&T, McCaw has agreed to provide equal access to its cellular customers. GTE cellular companies have not been subject to equal access and interLATA restrictions in contrast to restrictions on GTE landline companies as discussed in para. 8 of the NPRM.

11, 1994, p. 4) Nextel has now expanded its plans, and has purchased sufficient ESMR spectrum from Motorola and other companies to be able to offer its services to about 70% of the population in the U.S.[2] Nextel's proposed service areas cover about 180 million people and 47 of the top 50 U.S. SMSAs.

11. Nextel recently announced plans to acquire the other two major ESMR providers, Dial Call and OneComm. The total market value of the combined companies will be about $6-8 billion. Dial Call (formerly Dial Page) is constructing an ESMR network throughout the Southeastern U.S. Similarly, Onecomm (formerly Cencall) plans to offer ESMR service throughout the Rocky Mountain Region and the Pacific Northwest. These 3 ESMR companies cover almost the entire U.S, so that Nextel will be able to offer service to over 80% of the U.S. in almost every major MSA, with over 200 million pops in its service area when the acquisitions are completed. Nextel is likely to have a competitive advantage over cellular because of the larger geographical areas covered and the seamless roaming arrangements.

12. The recent FCC decision to allocate 120 MHz of spectrum for the construction of Personal Communications Service (PCS) networks will also lead to significant new entry by CMRS providers. Interest is very high among potential PCS providers which include local telephone companies (both in and outside their regions), interexchange carriers, local cable TV companies, cellular companies, and many other companies. The recently completed narrowband PCS auction demonstrates the high degree of interest in the provision of new services. PCS broadband auctions are likely to begin by the end of 1994. PCS will begin to provide significant new competition to cellular beginning in 1995 or 1996. A minimum of 3 new 30 MHz band PCS providers will offer service in each geographical area, plus one or more other new providers in the 10 MHz bands.

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[2] McCaw, the largest cellular carrier, has service areas which cover about 25% of the U.S. population.

13. PCS already works. In December 1993 when I visited the United Kingdom (UK), I used the PCS network which has been constructed by Mercury in partnership with U.S. West. The second PCS network in the UK, the Orange network operated by Hutchison Telecom, began operation in April 1994. The Orange network already covers 50% of the UK population, and it plans to cover 70% by the end of 1994, and 90% by the end of 1995. Both the Mercury and Orange networks have been successful almost from their inception--about 25% of new mobile activations in the UK in the latest quarter have been on these new networks.

14. PCS operates in the 1800 MHz band in the U.K. which is approximately the same frequency band that much of PCS is scheduled for in the U.S.[3] The handsets offered, manufactured by Nokia and Motorola, are virtually identical to the smallest cellular handsets available in the U.S. Thus, PCS is convenient to use and offers a wider range of services than are offered by the 2 UK cellular operators. Since PCS began operation in the UK during 1993, cellular prices in the UK have decreased by about 20-33%. Thus, PCS will provide increased competition to cellular. With 2 cellular providers, 1 ESMR provider, and 4 or more PCS providers, market competition provides a superior means to "protect" consumers. than a regulatory process which will lead to regulatory costs to mobile providers and actually will decrease competition.

15. Given this framework of increasing wireless competition the proposal of the NPRM to extend equal access to cellular providers is unnecessary. To the extent that consumer demand exists for presubscription to a long distance carrier different from the one offered by the cellular carrier, the rapidly expanding competition in the CMRS marketplace will accommodate that demand, and an increasing opportunity will exist for wireless

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[3] The frequencies are not exactly the same. However, the frequencies are close enough so that no difference in operation is expected.

providers and IXCs.

16. The increase in CMRS competition should also result in reduced regulation, while the NPRM would lead to increase regulation with the imposition of costly and burdensome equal access obligations. Neither cellular customers nor cellular providers will benefit from equal access requirements. Only IXCs will benefit from equal access because they will be able to charge higher prices to cellular customers as I discuss below. An FCC policy which favors IXCs at the expense of both cellular customers and CMRS providers is not the pro-competitive policy which the FCC has sponsored in other areas of the wireless industry. Indeed, NII objectives envision a new, flexible telecommunications regulatory regime that will "facilitate greater economic growth by removing regulatory barriers." (Administration White Paper on Telecommunications Reform, 1994, p. 1) Yet, imposing and extending burdensome equal access obligations is likely to lead to higher costs, inefficient networks, and subsequently higher prices to cellular customers.

III. IXC's Have Charged Anti-Competitive Prices to BOC Cellular Customers

17. BOC cellular customers have been required to buy their cellular long distance service from IXCs because of the MFJ restrictions. Almost all of these customers have purchased their service from the Basket 1 tariff prices from AT&T or virtually identical prices charges by other IXCs. Very few cellular customers (other than large companies) place enough long distance calls to find the various discount programs offered by the IXCs to be economical. The undiscounted prices charged by the IXCs have risen by 9.6% during the latest 12 month reporting period of March 1993-March 1994--well in excess of the CPI, the PPI, or the 0.4% increase in the price of local residential service over the same period. (FCC, "Trends in Telephone Service", May 1994, p. 8) Furthermore, the dominant IXC, AT&T, as well as MCI and Sprint have practiced price discrimination against cellular customers. Thus,

IXC support for mandatory equal access will afford these carriers the opportunity to engage in anticompetitive actions against all cellular customers, including Vanguard customers, and will lead to higher long distance prices for all cellular customers. While to date, IXC anti-competitive actions have affected the approximately 70% of cellular customers who subscribe to BOC cellular systems, extending equal access presubscription obligations to non-BOC providers will exacerbate this problem and simply harm more cellular customers.

A. AT&T has Exercised Market Power for Basket 1 Prices Paid by BOC Cellular Customers

18. AT&T's recent actions demonstrate that AT&T has market power which is not constrained effectively by competition in the long distance market. The FCC regulates AT&T as a dominant firm. The FCC's definition of dominance demonstrates a lack of competition: a dominant firm has the ability to exercise market power absent regulation.[4] The usual definition of market power is the ability to charge prices above the competitive price for a significant amount of time. One important purpose of regulation is to constrain the exercise of market power through either price or profit regulation; thus, the FCC continues to regulate AT&T as a dominant carrier. AT&T has market power for Basket 1 services, i.e. residential and small business services. BOC cellular customers who use AT&T long distance almost always are charged the Basket 1 service prices. In its evaluation of AT&T's performance under price caps, the FCC concluded that services in Baskets 2 and 3 (primarily services for large business customers) were sufficiently competitive to warrant a limited relaxation of then-existing regulation, although the FCC still classifies AT&T as dominant with respect to these

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[4] Regulation is not always effective in stopping the exercise of market power, as the current situation in long distance services demonstrates.

services and still regulates them.[5] However, the FCC did not relax its regulation of Basket 1 services, which are used predominantly by cellular long distance customers. Thus, I will focus my analysis on recent events for these Basket 1 services which are the cellular services bought by BOC cellular customers.

19. For Basket 1, the FCC reports that actual prices have been close to the price cap index over the four years following the start of price caps in July 1989. These results are shown in the following table.

[5] In the Matter of Price Cap Performance Review for AT&T, CC Docket No. 92-134, June 24, 1993.

Table 1: AT&T's Price Under Price Cap Regulation

	6/30/89	7/1/90	7/1/91	7/1/92	6/30/93
Price Cap Index (PCI)	96.6	94.3	94.1	94.4	94.7
Actual Price Index[6]	98.4	94.3	93.6	94.3	94.1
Residential Index	98.8	94.5	94.1	94.5	93.6
PCI - 3.3[7]	96.6	94.1	93.8	93.9	94.0
PCI - 4.3	96.6	93.5	92.6	92.2	91.7

Source: FCC, June 24, 1993, Chart 1.

20. Prices at or under the price cap index may be consistent with competition constraining prices if the productivity expected during the price cap period exactly matches the 3% target built into the price cap formula. The available evidence indicates that AT&T's actual productivity has been substantially higher than the target. While exceeding the target is a desirable outcome when price caps are necessary to constrain market power, such productivity gains in competitive markets would be reflected in lower prices.

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[6] The actual price index apparently exceeded the price cap index on the day before price caps began. Because AT&T is required to be at or under the price cap index, the reduction in actual prices between 1989 and 1990 is the result of regulatory action, not competition.

[7] The following two rows calculate the price cap index if AT&T had the same productivity factor which the FCC uses for LECs in their price cap formulae.

21. Subsequent to the FCC's evaluation of price caps, which resulted in the June 23, 1993 report, AT&T's price cap index was increased by over $200 million, primarily due to the adoption of accrual accounting for other post-retirement benefits (SFAS 106). Effective August 1, AT&T raised its rates for residential services by about one percent and its commercial rates by about 3.9 percent.[8] If competition existed in the Basket 1 long distance market, MCI and Sprint should have constrained AT&T from raising its prices. Instead, MCI and Sprint almost immediately matched AT&T's rate increases. In reporting on this event, the trade-press noted the following.

> "Following hard on AT&T's heels, MCI Telecommunications Corp. and Sprint Communications Co. L.P. have proposed across-the-board increases in their interstate rates for business and residential services. Exactly one week after AT&T filed tariff revisions with the FCC raising its business service rates by an average of 3.9% and its residential rates by about 1% overall, Sprint and MCI both filed tariffs on July 23 introducing similar rate increases. A veteran Washington observer said last week that the rate increases 'don't say much for the level and intensity of competition in the interstate services market.'
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> Asked why MCI appears to be matching AT&T's rate increase, MCI's spokesman said the company 'historically has been competitive in pricing our services relative to AT&T's rates. Despite this increase, our prices remain competitive with AT&T's,' he said. Similarly, Sprint's spokeswoman said: 'We face the same costs and competitive pressures as the rest of the long distance industry, and we routinely adjust our rates to reflect those pressures."[9]

AT&T announced yet another price increase for Basket 1 services in January 1994 which has lead to even higher prices for BOC cellular customers who mostly purchase Basket 1 long distance services.

22. The price increases by AT&T, MCI, and Sprint demonstrate a lack of competition for Basket 1 services. AT&T's price increase demonstrates that price cap regulation, not competition, was constraining AT&T's price. AT&T was able to increase its prices because of the effect of the accounting change on the FCC price cap formula. Thus, the clear implication of AT&T's recent

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[8] Telecommunications Reports, July 26, 1993.

[9] Telecommunications Reports, August 2, 1993.

price increases is that AT&T has market power.

23. An even more troubling outcome of AT&T's price increase is that MCI and Sprint followed the price increase. MCI and Sprint could have kept their prices at the old level and gained share from AT&T. Instead, they decided it would be more profitable to increase their prices along with AT&T. This "price leadership" behavior is often found in oligopolies which exhibit a low level of competition. Given that the common industry elasticity estimates for interstate long distance service are in the range of 0.5-0.75, AT&T would find it profitable to raise prices if price cap regulation were removed so long as it were confident that MCI and Sprint would follow the price increase.[10] Thus, if AT&T were to raise price by 5% and MCI and Sprint followed, demand would decrease by only about 3.7%. Thus, the price increase would be profitable because revenue would increase by about 1.3% in addition to cost savings of the IXCs in not meeting the 3.7% decrease in demand.

24. The situation described above is one of a dominant price leader (AT&T) increasing prices on the basis of a regulatory accounting change, with the price followers (MCI and Sprint) following suit. This behavior does not indicate that AT&T's prices are being constrained by competition. Instead, AT&T's prices are being constrained by price caps. When the regulatory constraint is eased, AT&T's prices rise. Even more troubling, AT&T's two largest competitors immediately followed AT&T's price increase.

B. AT&T and other IXCs Price Discriminate Against BOC Cellular Customers Because of a Lack of Competition for Residential and Small Business Long Distance Services

25. The market power described above allows AT&T and the other IXCs to price discriminate against BOC cellular customers. It is well known that a

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[10] I report the magnitude of elasticities where the negative sign is understood. AT&T employees have reported an interLATA interstate price elasticity estimate of 0.72.

firm cannot anti-competitively price discriminate unless it has market power. (Tirole, The Theory of Industrial Organization, (Cambridge, MIT Press, 1988, pp. 137-139)) Thus, AT&T's and the other IXCs' anti-competitive price discrimination against the BOCs' cellular customers demonstrates that AT&T has market power.

26. AT&T is currently engaged in price discrimination. Price discrimination is defined by economists to be the practice of charging different prices for goods or services which have the same cost, or equivalently, to be charging prices which lead to different margins (price - cost) for similar goods or services.[11] AT&T is charging BOC cellular customers (who do not have a special discount plan) the same price for long distance calls as landline MTS long distance calls, despite a significantly lower cost for the cellular calls. Thus, AT&T's margin is significantly higher for long distance calls on cellular which is a "textbook" example of price discrimination.

27. AT&T (and the other IXCs) has significantly lower costs for cellular calls than for landline calls because AT&T is not required to pay switched access rates for cellular long distance calls; instead, usually AT&T pays only for transport.[12] I will use Southwestern Bell's interstate switched access rates and transport rates as an example.[13] For all switched interLATA landline calls AT&T is required to pay Southwestern Bell an access

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[11] See e.g. J. Tirole who defines price discrimination as follows: "Hence, we will say that there is no price discrimination if differences in prices between consumers exactly reflect differences in the costs of serving these consumers (this amounts to considering the net cost of serving a consumer)." (J. Tirole, op. cit., pp. 133-134.)

[12] The example applies to the other IXCs as well as AT&T.

[13] This example is for Type II Interconnection (via a BOC access tandem switch), which is the most common type of cellular interconnection from the BOC cellular MTSO to the AT&T POP. Type I Interconnection (via a BOC end office) is used only rarely according to Southwestern (and Pacific) Bell personnel. I discuss the other type of cellular access, Direct Connection from the cellular MTSO to the AT&T POP in the following paragraph.

fee of about 2.8 cents per minute for both originating and terminating access. These access fees are significant; AT&T has estimated they are about 40%-45% of its total costs. However, when a long distance call originates from a cellular telephone, AT&T is not required to pay Southwestern Bell for switched access; usually only transport is charged for. The amount charged to AT&T for this transport is about 1.0 cents per minute which is a significant cost savings. Thus, AT&T's access costs are 32% lower for a cellular long distance call than for a landline long distance call.[14] On an incremental cost basis, I estimate that AT&T's costs are about 27% less for a cellular long distance call that terminates to a landline phone than a regular landline long distance call.[15] However, AT&T does not reflect this lower cost in its cellular long distance prices. Thus, AT&T is engaged in price discrimination.

28. AT&T's access cost savings for cellular long distance calls is even greater than the calculation in the example. A significant proportion of BOC cellular long distance calls are carried by direct connections from the cellular MTSO to the AT&T POP via DS-1 (T1.5) or similar services. In this situation the 1.0 cents per minute transport cost is avoided, and a monthly charge for the DS-1 which typically would be about 0.3 to 0.4 cents per minute of cellular long distance traffic would be paid by AT&T.[16] Here AT&T's access costs savings compared to its usual switched access cost is 44%. This

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[14] AT&T's cost savings are even greater in some other BOC regions. For instance, in California AT&T's access cost savings are 47% for cellular access compared to landline switched access. Here I am assuming that both calls terminate to a landline phone. If the cellular call terminates at a cellular phone, AT&T's access cost savings are 64% in Southwestern Bell's territory. For cellular to cellular calls in California, AT&T's cost savings is 74%.

[15] Similar cost differences exist for intrastate interLATA cellular long distance calls where AT&T's cost savings due to lower access charges are about 27%-55% compared to landline long distance calls. In these ranges of cost differences I have accounted for other costs which may arise with cellular long distance such as a higher incidence of fraud.

[16] This calculation is based on a monthly price of a DS-1 of about $400 per month from Southwestern Bell and a price of about $300 per month from a competitive access provider (CAP). Despite the significantly lower cost to AT&T, because of the MFJ restrictions all long distance revenues here are remitted to AT&T.

cost difference reflects the usual situation that switched access is significantly more costly than special access for long distance calls.

29. Price discrimination can be pro-competitive if it leads to an increase in output as I demonstrated in my 1988 Rand Journal article, and as other economists have discussed.[17] Here, however, AT&T's price discrimination leads to lower output because it is charging cellular long distance customers a higher price and is not reducing the long distance price to its landline (Basket 1) customers. Thus, the price discrimination by AT&T is anti-competitive. This anti-competitive price discrimination demonstrates AT&T's ability to use its market power to harm consumers.

30. In principle, AT&T's competitors, MCI and Sprint, could offer sufficiently lower long distance prices to BOC cellular customers to force AT&T to end its anti-competitive price discrimination. Both MCI and Sprint have the same type of lower costs for cellular long distance customers as does AT&T. However as I discussed above, price competition among AT&T, MCI, and Sprint for residential and small business users (FCC Basket 1) is quite low. Indeed, both MCI and Sprint have followed each of AT&T's 4 price increases for Basket 1 services (which are residential and small business services) by raising their price by almost exactly the same percentage amounts. Three of these price increases have occurred since July 1993. Thus, MCI and Sprint seem willing to go along with AT&T's price discrimination for cellular long distance. Presumably, MCI and Sprint have decided they can achieve higher profits by going along with AT&T's price increases. The NPRM's tentative conclusion that equal access "creates incentives for the IXCs to compete on the basis of price" (para. 36) is directly contradicted by the experience to date for BOC cellular customers (70% of the total) where no meaningful

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[17] J.A. Hausman and J.K. MacKie-Mason, "Price Discrimination and Patent Policy", Rand Journal of Economics, 19, 1988. For a demonstration that overall quantity must increase for economic welfare to increase see J. Tirole, The Theory of Industrial Organization, (Cambridge, MIT Press, 1988), p. 138.

competition has existed among IXCs for BOC cellular customers' long distance traffic.[18]

IV. Imposition of Equal Access Requirements on Non-BOC Cellular Providers Will Not Lead to Lower Cellular Long Distance Prices

31. Cellular companies such as Vanguard, which are not required to provide equal access, buy their long distance service in bulk from an IXC (usually AT&T) and then resell the service to their customers. Indeed, Vanguard currently buys from a Tariff 12 offering from AT&T. Since the cellular company purchases the long distance service in bulk, usually under a Tariff 12, or similar contract from another IXC, the cellular company is able to achieve much lower prices than individual customers.[19] For instance, AT&T sells Megacom service at $0.065-$0.08 per minute, and AT&T sells long distance service in bulk at even lower rates from Tariff 12 offerings with a further discount of up to 40%. By contrast, the current average rate of cellular customers who buy their long distance service from an IXC is about $0.20-$0.25 cents per minute.

32. These much higher prices paid by individual cellular customers arise from 2 factors--individual customers do not have "buyer power" which typically leads to much lower prices and the IXCs have anti-competitively price discriminated against cellular customers by not reflecting their significantly lower access costs in lower long distance prices. Since the bulk discounts depend on volume purchased, e.g. the AT&T Megacom tariff yields

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[18] Also the tentative conclusion in para. 42 of the NPRM regarding increased competition in the IXC marketplace is directly contradicted by the experience to date of the 70% of cellular customers who have been required to buy their cellular long distances service from IXCs tariffs which charge supra-competitive and discriminatory prices.

[19] Occasionally, large companies are able to purchase their cellular long distance as part of more comprehensive contracts and achieve lower prices. However, almost all cellular customers buy undiscounted cellular long distance service from an IXC if they are on a BOC cellular system.

discounts of up to 20% as volumes increase, long distance prices to cellular customers would not decrease with equal access. Indeed, it is likely that cellular long distance price would increase since the cost of long distance to companies such as Vanguard, who currently buy in bulk, would increase.

33. Under almost all models of market power or oligopoly situations, economic theory predicts that higher costs lead to higher prices, or conversely, that lower costs lead to lower prices. Economic analysis demonstrates that price is set as a markup over marginal cost where the markup depends on the degree of competition, along with other economic factors. When marginal costs, such as the cost of bulk long distance service increases, price will also increase with the exact amount of the increase depending on the markup. Thus, even if the Commission believes that cellular companies currently exercise market power, requiring equal access of non-BOC cellular companies is likely to lead to higher long distance prices to cellular customers since the marginal costs of the cellular companies will increase.

34. The NPRM tentatively concludes that equal access obligations may be appropriate when market power is present. However, the FCC has never concluded that cellular carriers are exercising market power and the inception of service by ESMR, PCS, and other new CMRS providers will increase competition in the near future. Indeed, the NPRM recognizes that its tentative conclusion is not based on a full consideration of these new CMRS services which will compete directly with cellular. (NPRM, para. 43) I am unaware of any studies which demonstrate or claim market power for small to medium sized cellular providers such as Vanguard. Cellular prices are typically significantly lower in smaller MSAs and RSAs which Vanguard competes in, versus the considerably higher cellular prices in large MSAs such as New York or Los Angeles. The increasing competition from new CMRS and the absence of market power makes unnecessary the creation of another layer of regulatory oversight and seems contrary to the FCC's efforts in other proceedings, e.g.

PCS, to structure a competitive wireless market place that does not require zealous FCC oversight.

35. Moreover, as discussed above, the most likely outcome of imposing a new equal access regulatory regime would be that AT&T and the other IXCs would not compete sufficiently to cause lower long distance prices for cellular customers. The IXCs have anti-competitively price discriminated against BOC cellular customers, and they have not reflected their lower access costs in their cellular long distance prices.

36. Resellers who use BOC cellular networks to provide service also often do not provide a choice of a long distance carrier. I surveyed cellular resellers in the Los Angeles and San Francisco MSA to find out how often they provided a choice of long distance carriers. Only 48% of the resellers offered a choice of long distance carriers despite the fact that equal access to long distance carriers was provided on the BOC cellular networks. Thus, resellers who use exactly the same physical facilities as the BOC cellular companies with whom they are in competition, find it unnecessary to offer equal access despite the fact that any customer can obtain equal access and identical cellular service by switching to a BOC agent for service. These survey data demonstrate a lack of customer demand for equal access provision of long distance service for their cellular usage. (See para. 25 of the NPRM)

V. Vertical Integration Will Lead to Lower Costs and Increased Economic Efficiency

37. Economists (and the courts) have concluded that in most situations vertical integration--e.g. selling both "upstream" cellular service and "downstream" cellular long distance service--leads to a pro-competitive outcome. This pro-competitive conclusion can be overturned typically in the following situations: evasion of regulation, anti-competitive price discrimination, or increased entry barriers. None of these three conditions

holds true for cellular providers such as Vanguard. No cellular company is regulated by rate of return or price cap regulation so evasion of regulation is not a concern. Anti-competitive price discrimination has not occurred in the cellular industry and should not pose a potential problem since other cellular companies are not, except for the combination of AT&T and McCaw, significant competitors as IXCs.[20] Lastly, no change in entry barriers will occur from vertical integration here since additional (PCS) spectrum is the controlling economic factor for entry. Thus, the economic factors in vertical integration all point to a pro-competitive outcome.

38. Costs are also likely to be lower with vertical integration. For instance, AT&T has stated that its cellular long distance costs are higher than landline because of increased costs of billing and collection.[21] To the extent that these higher costs are significant, vertical integration by cellular companies leads to decreased costs due to economic of scope. The costs of billing and collection are already undertaken by cellular companies, and the incremental costs to bill and collect for long distance calls are likely to be significantly lower because most of the "problem customers" will exist both with respect to their cellular airtime bills and their cellular long distance bills. These costs savings increase economic efficiency and will also lead to lower prices for cellular customers.

39. Moreover, imposition of equal access requirements on cellular carriers will lead the FCC into almost immediate new difficult issues of "regulatory parity." Should ESMR or PCS companies be required to provide equal access? Should cable companies that provide telephone service be

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[20] Sprint does own significant cellular interests, but it is the third largest long distance company. Furthermore, much of its cellular interests are minority interests in the larger MSAs.

[21] See the "Affidavit of B.D. Bernheim and R. Willig, August 1, 1994", submitted on behalf of AT&T in opposition to the BOC cellular companies request to provide cellular long distance service.

required to provide equal access (they are not required to do so in the United Kingdom)? The FCC has recognized in the NPRM that added costs arise with mandatory provision of equal access. Mandatory provision of equal access creates these extra costs, but it does not appear to create counteracting competitive benefits because customers (either cellular or landline) who buy their long distance service at individual prices have not benefitted from lower prices which should have occurred with competition among IXCs.[22] Large buyers of long distance service, either cellular companies such as McCaw or large companies such as DuPont, are able to achieve quite low long distance prices, but individual buyers have not benefitted from similar price decreases.

40. From an economic perspective, buyers of Big Macs at MacDonalds do not have equal access to soft drinks since MacDonalds only sells Cokes. Similarly, Whopper buyers at Burger King are offered only Cokes, not Pepsis. The cola companies compete fiercely to win these large exclusive contracts. No serious economist would claim that Pepsi Cola should have equal access to MacDonalds customers.

41. Thus, I recommend that the FCC re-orient its policy towards equal access in a world of competitive providers of telecommunications services. If only a single monopoly provider exists because of technology reasons, equal access may allow for increased downstream competition, especially when rate of return regulation is used for the monopoly provider. However, with competitive upstream providers, the market should be allowed to determine the most efficient and competitive provision of telecommunications services. MCI or some other IXC can buy a large share in Nextel while Vanguard can decide to supply some of its own long distance service and buy some from other long distance providers. The neat separation of the 5 levels of AT&T switches with

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[22] Indeed, nearly all (and perhaps more than all) of the decrease in long distance prices to residential customers has occurred due to regulatory decreases in access rates.

class 1 to class 4 providing the toll network portion and class 5 providing the local network switching is as far gone as the vacuum tube computer.[23] Integrated provision of telecommunications services is advancing rapidly as cable companies enter telephony, telephone companies provide video dialtone, and so on. These competitive providers should be allowed to provide all possible services to their customers and should not be required to provide access or information about these customers to their competitors. Imposition of equal access on cellular companies would be a move in the wrong direction just as competition is growing rapidly. Vertical integration and use of economies of scope will lead to lower costs, lower prices, and more competition for telecommunications customers in the U.S.

VI. The Claimed Benefits of Equal Access Do Not Exist

42. The NPRM claims four main "benefits" of applying equal access to cellular providers. (paras. 36-39) I will now briefly consider each of the claimed benefits. First, the NPRM states that equal access will permit increased consumer choice and lower cellular long distance prices. As I have demonstrated, few consumers value the choice as services offered by resellers demonstrates. Consumers seem much more interested in receiving a single monthly bill which combines their cellular and cellular long distance usage. More importantly, equal access has led to higher cellular long distance prices dues to the anti-competitive price discrimination exercised by the IXCs. Eliminating current equal access requirements will lead to lower cellular long distance prices; imposing equal access on all cellular carriers will lead to further increases in cellular long distance prices.

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[23] A description of the old AT&T toll network configuration is found in R.F. Rey, ed., Engineering and Operations in the Bell System,(AT&T Bell Labs, 1983), ch. 10.

43. Next, the NPRM claims that equal access will increase access to other networks and increase network usage. Access to other networks is not valuable to consumers standing alone. Consumers are interested in buying competitively priced cellular long distance service. Furthermore, lower cellular long distance prices will lead to increased network usage given the price elasticity for cellular long distance calls. Imposition of equal access will lead to decreased network usage because higher cellular long distance prices will lead to decreased demand. Using my MacDonalds example from above, the NPRM wants to force MacDonalds to offer CocaCola, Pepsi Cola, and Royal Crown even though the price of a soda will increase by 25%. I doubt that customers will value this "increased access" given their higher bills. Furthermore, less soda will be bought because of the higher prices. Equal access is not an economic good by itself--customers buy cellular long distance service, not equal access.

44. The next claimed benefit is that IXCs could develop combined offerings for discounted long distance service that would combine residential wireline and cellular usage. To the best of my knowledge, IXCs could have currently developed these offerings today, but they have not done so. This lack of service offering demonstrates either a lack of customer demand or anti-competitive actions by IXCs given their demonstrated ability to charge above competitive cellular long distance prices.[24] Furthermore, IXCs will have ample opportunity to develop these type of packages in the future with ESMR and PCS providers. For instance, Nextel and MCI had agreed that all long distance traffic on Nextel would be carried by MCI, before their agreement was terminated. MCI could certainly offer a combined long distance bill to Nextel customers. Such a plan would possibly create additional demand for Nextel which would create additional long distance demand for MCI. Competition, rather than regulation, should decide whether such packages are valued in the

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[24] Since the majority of cellular customers are BOC cellular customers, IXCs could already have offered such a product.

market place by customers.

45. The last benefit claimed by the NPRM is regulatory parity. As described above, regulatory parity is a "two-edged sword." As the Commission has recognized, how should PCS, ESMR, and even cable companies providing telephone service be regulated? More important, regulatory parity is not a good valued by consumers. Only lower prices and higher quality service are valued by consumers. Since imposition of equal access will likely lead to higher prices to consumers, regulatory parity is hardly a benefit to consumers. Elimination of all equal access requirements would be the benefit which consumers would most highly value to the extent that their cellular long distance prices decreased.

46. Market actions by both non-BOC cellular companies, e.g. the Vanguard Pennsylvania "Supersystem" and the McCaw "City of Florida" offering, and by BOCs (when they have received waivers) in expanding local calling areas beyond LATA boundaries, demonstrate that cellular customers value expanded geographic calling scopes. This very important marketplace development, the creation of seamless wide-area systems, means that in the event that equal access obligations are imposed, the FCC should adopt an expanded geographic definition of local calls. Cellular service is for mobile customers whose travel patterns bear no relation to the arbitrary LATA boundaries imposed on landline service when the LATA boundaries were determined over a decade ago to permit non-AT&T IXCs to be able to compete with AT&T. The NPRM acknowledges that customers would be made worse off by local service territory definitions that impede service offerings by mobile carriers, especially for wide-area service. (para. 66) Thus, the FCC should adopt service areas based on MTA boundaries as it recently did for PCS. BOC cellular carriers have filed for MFJ waivers to replace LATAs with MTAs as the local service area, and cellular customer would benefit from local calling scopes which would permit local calls which bear a closer relationship to travel patterns than do LATA